REMARKS

A. Background

Claims 39-67 and 89-94 were pending in the application at the time of the Office Action with claims 1-38 and 68-88 being withdrawn from consideration. The Office Action rejected claims 39, 41-45, 50, 51, 54-57, 63, 65, 66, 89-92, and 94 as being anticipated and/or obvious over cited prior art. Claims 40, 46-49, 52, 53, 58-62, 64, 67, and 93 were either allowed or objected to as being dependent upon a rejected base claim. By this response applicant has amended claims 39, 43-45, 47-50, 52, 53, and 57-59; cancelled claims 1-38, 42, 46, and 68-88; and added new claims 95-108. As such, claims 39-41, 43, 45, 47-67 and 89-108 are presented for the Examiner's consideration in light of the following remarks.

B. Proposed Claim Amendments

By this response applicant has amended claims 39, 43-45, 47-50, 52, 53, and 57-59 and added new claims 95-108. Applicant respectfully submits that the amendments to the claims do not add new matter and entry thereof is respectfully requested.

C. Rejection on the Merits

Paragraph 4 of the Office Action rejected claims 39, 42-45, 50, 51, 54, 55, 57, 63, 65, and 66 under 35 U.S.C § 103(a) as being obvious over U.S. Patent No. 5,595,444 to Tong et al., in view of U.S. Patent No. 5,458,418 to Jones et al. and U.S. Patent No. 5,682,149 to Hofman. (Paragraphs 4-6 of the Office Action references U.S. Patent No. 6,432,339 to Tremblay et al. However, in a telephone conference conducted with the Examiner on July 30, 2003, the Examiner confirmed that

all reference to the Tremblay patent in the paragraphs 4-6 of the Office Action should be replaced with the Hofman patent.)

The Tong patent discloses "methods of detecting poor meat quality in live animals using infrared thermography." (Abstract). In general, the method of Tong comprises: (1) scanning an area of each animal in a group of live domestic animals, (2) determining the temperature of each animal, (3) determining the central tendency of the temperature for the group of animals, and (4) rejecting the animals having a high probability of producing poor meat quality, the rejected animals being those whose individual temperature differs the most from the group's temperature. (Col. 4 lines 3-16). More specifically, Tong discloses that

> groups of live domestic animals arrive at the plant in truckloads of about 40 or more animals. Each animal of the group is scanned with the infrared camera positioned to view a relevant, discrete and consistent anatomical site. The digitalized data output from the camera is used to determine the mean temperature for each animal's image, the mean temperature for the group of animal images, and the average deviation, or more preferably the standard deviation. Animals are rejected after comparing the individual animal mean temperature with the group mean temperature. Animals whose mean temperature differs from the group mean by more than about 0.9 standard deviations, or more preferably, by more than 1.28 standard deviations are rejected as animals having a high probability of producing poor meat quality.

Col. 6, lines 48-62.

Although Tong discloses taking the temperature of the **group** of animals over a period of time (col. 6, lines 14-17), Tong only discloses determining the temperature of each animal one time. That is, as discussed above, the mean temperature of each individual is obtained from a single infrared scan of each animal. This point is conceded in the Office Action which states that "Tong et al. do [sp] not teach: a) obtaining time varying measurements corresponding to a body temperature of the animal at periodic sampling intervals." Office Action, page 3. The individual temperatures are used to calculate the mean temperature and the standard deviation for the group of animals.

Since Tong only discloses obtaining a single body temperate from each animal, Tong does not disclose or suggest "obtaining measurements corresponding to a body temperature of the animal at periodic sampling intervals over a predetermined time period," as recited in claim 39. Furthermore, because Tong does not obtain measurements at periodic sampling intervals, Tong does not and cannot "determine[] an indication or measure of the **extent of variation in said measurements**" nor can it "compare[] said indication or measure of the extent of variation to a predetermined threshold," as also recited in claim 39.

The Hofman patent teaches a body mountable measurement device for measuring body temperature of living animals. The Office Action asserts that it "would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Hofman in the Tong system in order to measure variations of the animal's body temperature over time." Office Action, page 5. Applicant respectfully disagrees.

As discussed above, Tong discloses obtaining a single temperature for each animal. Based on the temperature of each animal, the mean temperature for the group of animals is obtained. The potential for meat quality is based on the variation between the temperature for a specific animal and the mean temperature for the group of animals. There is no motivation to modify the invention of the Tong patent to repeatedly obtain the temperature of an animal over a period of time, as taught in the Hoffman patent, because Tong has no need for such information. That is, the method disclosed in the Tong patent is not dependent on nor does it take into account the change in temperature of an animal over time. As such, the Tong patent has no need for such information.

Furthermore, even assuming *arguendo* that Tong was modified to obtain multiple temperature measurements for a given animal over a predefined time window, neither Tong nor Hofman disclose or suggest "determining an indication or measure of the **extent of variation in said**

measurements," as recited in claim 39. That is, neither Tong nor Hofman disclose or suggest determining an indication or measure of the extent of variation in the obtained measurements corresponding to the body temperature of the specific animal.

The Jones patent discloses methods for detecting poor meat quality in live animals using infrared thermography. In general, the method comprises:

(a) scanning a live animal with an infrared camera to produce a thermographic image;

(b) determining the proportion of the scan falling within a predetermined test temperature range (i.e., the proportion of the total pixels of a defined area which fall within a particular temperature range); and

(c) rejecting the animal as one have a high probability of producing poor meat quality if the proportion of the scan falling within the test temperature range is lower than that falling outside of the test temperature range. Col. 2, lines 25-39; col. 3, lines 24-25.

The Jones patent thus determines whether an animal, such as a cow or pig, has a high probability of producing poor meat quality by obtaining a single thermographic image of the animal and then analyzing that image to determine the proportion of the total pixels of the image that fall within a predetermined temperature range. Although examples are given where more than one thermographic image is obtained per animal, the analysis of each image is independent of the other images. As such, applicant submits that the Jones patent does not disclose or suggest "determining an indication or measure of the **extent of variation in said measurements**," as recited in claim 39. That is, the Jones patent does not disclose or suggest determining an indication or measure of the extent or variation between a plurality of measurements (thermographic images) obtained over a time period, *i.e.*, a plurality of different thermographic images over time would need to be compared and a

measure of the extent of variation in those thermographs over time determined.. Furthermore, because the Jones patent does not determine an indication or measure of the extent of variation in the obtained measurements, the Jones patent does not and cannot "compare[] said indication or measure of the extent of variation to a predetermined threshold," as also recited in claim 39.

In view of the foregoing, applicant submits that claim 39 is not obvious over the Tong patent in view of Jones patent and the Hofman patent for the reasons as discussed above, and, more specifically, because none of the cited prior art either independently or in combination discloses or suggests "determining an indication or measure of the extent of variation in said measurements" or "comparing said indication or measure of the extent of variation to a predetermined threshold," as specifically recited in claim 39.

Claims 43-45, 50, 51, 54, and 55 depend from claim 39 and thus incorporate the limitations thereof. As such, applicant submits that claims 43-45, 50, 51, 54, and 55 are distinguished over the cited prior art for at least the same reasons as discussed above with regard to claim 39.

Applicant respectfully submits that claim 57 is distinguished over the cited prior art for substantially the same reasons as discussed above with regard to claim 39. Specifically, applicant submits that the cited prior art does not disclose or suggest the following as recited in claim 57:

> a processor or controller configured to:
> receive said measurements from said measurement device;
> determine an indication or measure of the extent of variation in said measurements as a whole over the period;
> compare said indication or measure of the extent of variation to a predetermined threshold to obtain a result; and
> providing said result of said comparison as output.

Claims 63, 65, and 66 depend from claim 57 and thus incorporate the limitations thereof. As such, applicant submits that claims 63, 65, and 66 are distinguished over the cited prior art for at least the same reasons as discussed above with regard to claim 57.

Paragraph 4 of the Office Action rejected claim 41 as being obvious over the Tong patent in view of the Jones patent and Tremblay patent. Claim 41 depends from claim 39 and thus incorporates the limitations thereof. As such, applicant submits that claim 41 is distinguished over the cited prior art for at least the same reasons as discussed above with regard to claim 39.

Paragraph 5 of the Office Action rejected claims 56, 89-92 and 94 being obvious over the Tong patent in view of the Jones patent, Tremblay patent and U.S. Patent No. 4,865,044 to Wallace et al. Initially, claim 56 depends from claim 39 and thus and thus incorporates the limitations thereof. As such, applicant submits that claim 56 is distinguished over the cited prior art for at least the same reasons as discussed above with regard to claim 39.

Concerning claims 89-92 and 94, the Wallace patent discloses a temperature-sensing system for cattle. The system includes a tag 1 which includes a transmitter that transmits a radio wave. The radio wave is processed by a remote receiver so as to ascertain the temperature of the cow. Applicant submits that neither Wallace nor any of the other cited prior art disclose or suggest an "an indicator mounted on the tag or incorporated therewith and communicating with the one or more animal temperature sensors, said indicator being configured to provide a local indication depending on said output from said one or more animal temperature sensors," as recited in claim 89. That is, Wallace provides a wave to a remote receiver but does not provide a local indication.

Claims 90-92 and 94 depend from claim 89 and thus incorporate the limitations thereof. As such, applicant submits that claims 90-92 and 94 are distinguished over the cited prior art for at least the same reasons as discussed above with regard to claim 89.

Applicant submits that new claims 95-108 are distinguished over the cited prior art for at least some of the same reasons that claims 46-49, 52, 53, 58-62, 64, 67, and 93 were considered allowable in the Office Action.

No other objections or rejections are set forth in the Office Action.

D. Conclusion

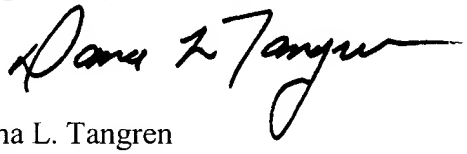
Applicant notes that this response does not discuss every reason why the claims of the present application are distinguished over the cited prior art. Most notably, applicant submits that many if not all of the dependent claims are independently distinguishable over the cited prior art. Applicant has merely submitted those arguments which it considers sufficient to clearly distinguish the claims over the cited prior art.

In view of the foregoing, applicant respectfully requests the Examiner's reconsideration and allowance of claims 39-41, 43, 45, 47-67 and 89-108 as amended and presented herein.

In the event there remains any impediment to allowance of the claims which could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate such an interview with the undersigned.

Dated this 16 day of December 2003.

Respectfully submitted,



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